

FY 1998
Hispanic-Serving Institutions Education
Grants Program

Description of
Funded Projects

Higher Education Programs
Science and Education Resources Development
Cooperative State Research, Education, and Extension Service
U.S. Department of Agriculture
Washington, D.C.

Proposal Number: 9803946
Grant Number: 98-38422-6932
Lead Project Director: Dr. Albert Reed

Lead Institution: Santa Fe Community College
Award Amount: \$292,548
Project Duration: 2 years, 4 months

Classrooms Without Walls: A Bridge to Careers for Underrepresented Populations. This is a joint project between Santa Fe Community College and the New Mexico Department of Health/Public Health Division. SFCC project director: Albert Reed, MA, Dean of Instruction. SFCC Project Coordinator: Janice Montgomery, MS, RD, CDE. NMDH project director: Jane C. Peacock, MS, RD.

Santa Fe Community College (SFCC) and the New Mexico Department of Health/Public Health Division will create a nutrition curriculum for distance delivery that will serve the needs of underrepresented populations in New Mexico and encourage students to enter careers in the food sciences. The objectives of the project are to design and implement a curriculum leading to a college certificate, degree and/or fulfilling education requirements for positions beyond the entry level in the New Mexico Department of Health. Outreach/recruitment and retention plans targeting underrepresented populations will encourage student participation in the program and provide appropriate academic support so students will complete the program.

Students and instructors will communicate outside of class time through e-mail and in a dedicated web-based chat room. Specialized outreach and support services will attract nontraditional students and encourage their persistence to complete the program.

Project dissemination has four aspects: (1) potential partners, end users and faculty from other institutions will be invited to review the ongoing, evolving project; (2) a written summary and sample videotape will be produced; (3) the final summary report will be posted to SFCC's web page including notice of availability of the videotape and a link to the USDA page; and (4) the project coordinator and other staff will seek opportunities to present and publish results nationally in the fields of nutrition, distance education and student services.

Proposal Number: 9803953
Grant Number: 98-38422-6904
Lead Project Director: Dr. Larry G. Spears

Lead Institution: University of Houston - Downtown
Award Amount: \$284,982
Project Duration: 3 years

Attracting Underrepresented Students to the Sciences Through a Seed Testing and Research Program (STRP). This proposed project will create a seed testing and research program to provide precollege and college students, particularly those from underrepresented groups (Hispanic), with undergraduate research experiences in agricultural-related sciences. Over the three years of the project, it will implement a precollege summer program, an advanced freshman research and academic enrichment program, a summer research internship program, and an academic year colloquium.

As a Hispanic-Serving Institution, University of Houston-Downtown has brought together a unique group of urban science partners. These non-lead partners include research universities, environmentalist/preservation groups, and nature refuge organizations.

This project will produce several products, outcomes and results. As outcomes, it is anticipated that this project will:

- improve access to science careers for students from underrepresented and underserved groups (for this program, primarily Hispanic)
- enhance preparation of students planning to major in the natural sciences
- increase the students' knowledge of agricultural, food and plant science concepts, their relationship to the basic sciences, and their urban community (environment)
- encourage more Hispanic students to pursue careers and graduate studies in agricultural, food and plant sciences.

STRP represents part of a substantive commitment to provide access to science education for all students. It will continue as part of a larger plan that will: (1) incorporate selected sites within the community for short- and long-term environmental assessments documenting air, water, and soil quality; (2) accumulate data to enhance city-wide activities such as urban landscaping, community parks, educational programs, policy formulation, and programs with commercial applications; and (3) establish a teaching and research greenhouse. The UHD administration has agreed to immediately begin to seek funds to develop a greenhouse facility with adjacent exterior areas designated for special plants and trees for use in its Urban Science and Ecology program and other related initiatives.

Proposal Number: 9803968
Grant Number: 98-38422-6867
Lead Project Director: Dr. Ilse Sanders

Lead Institution: Inter American University of Puerto Rico
Award Amount: \$140,255
Project Duration: 2 years

A Program to Improve the Scientific Instrumentation for Teaching. This project will take place on the San German campus of Inter American University of Puerto Rico, a campus serving over 6,000 students in southwestern Puerto Rico. The San German campus offers a bachelor's degree in environmental sciences, initiated in 1992, and a master's degree in environmental sciences, implemented in 1997. Current enrollments in these two programs are 96 at the baccalaureate degree level and 28 at the master's degree level, or a total of 124 students, indicating the demand for these degree programs in western Puerto Rico.

The project goal is to strengthen the ability of the San German campus to carry out a program at the bachelor's and master's degree levels in the environmental sciences that will attract, retain, and graduate outstanding students capable of enhancing the Nation's food and agricultural scientific and professional work force. The project objectives seek to increase the number of Hispanic students who are attracted to and enter the food and agricultural scientific and professional work force, to increase the capability of the San German campus to offer a quality program at the undergraduate and graduate level in the environmental sciences by improving the laboratory instructional delivery system, and to increase significantly the number of Hispanic undergraduate and graduate students, and especially women, who complete undergraduate and graduate degrees in environmental sciences.

The project seeks to improve the scientific instrumentation for teaching and thus to strengthen the laboratory program in the environmental sciences majors. Both the graduate and undergraduate programs place an emphasis on the analysis of water, soils and the atmosphere for contaminants as well as prevention strategies. Additional instrumentation will provide new experimental techniques, complement existing equipment, and replace outdated instrumentation.

Proposal Number: 9803959
Grant Number: 98-38422-6928
Lead Project Director: Dr. J. Juechter

Lead Institution: Bronx Community College
Award Amount: \$219,906
Project Duration: 2 years

Food and Warehouse Management. The primary goal of this joint project proposal is to create a high quality program in Food and Warehouse Management at Bronx Community College (CUNY) in concert with Project SHARE-NY -- a nationally known community development and food delivery agency -- and with local businesses with food and/or warehouse operations. The project will launch a new career path and open up economic opportunities for minority students in the Bronx.

The objectives of the project are to organize a curriculum in Food and Warehouse Management, developing specialized courses toward the A.A.S. degree in collaboration with four year institutions. In addition, the staff will advise and counsel the program participants through the first year of enrollment and utilize experiential work and "hands-on" assignments with a minimum of two private sector organizations. To encourage full participation, high graduation rates and continuation of the BCC students' education at a four year college, a strong articulation agreement and new communication lines will be forged with four-year institutions that offer similar curricula.

The Food and Warehouse Management Curriculum will admit 25 - 40 students during the two-year life of the grant, organize key members of an advisory board, create an interdepartmental curriculum using the expertise of regional professionals, submit applications for appropriate approvals from BCC, CUNY and the N.Y. State Education Dept. to institutionalize the curriculum, increase articulation arrangements with CUNY and regional private colleges, and provide substantial career counseling and mentoring support for students.

Proposal Number: 9803979
Grant Number: 98-38422-6834
Lead Project Director: Dr. Juan A. Negron

Lead Institution: Inter American University - Barranquitas
Award Amount: \$270,000
Project Duration: 2 years

Cross-Training in Agriculture. This project is a joint, two-year effort between the Inter-American University at Barranquitas (IAUB) and the University of Texas at Brownsville (UTB). Cross-training in Agriculture will develop a replicable, bilingual model of collaboration that advances the quality of agricultural education at these two Hispanic-serving institutions, so that instead of competing with one another, they will work together to make the most of their human, cultural, and institutional resources. The project touches upon four areas of interest to the U.S. Department of Agriculture: (1) faculty preparation and enhancement for teaching; (2) curricula design and materials development; (3) student experiential learning; and (4) student recruitment and retention.

The Cross-training in Agriculture project will coordinate the exchange of training in specifically identified areas, thus facilitating the creation of two faculty teams: one from the IAUB, which will train faculty members at the UTB and begin the long-range process of developing a new degree program in ornamental horticulture and composting; and another at the UTB, which will train faculty members at the IAUB in the application of genetic resources to ornamental horticulture and in developing an Associate's degree program in Food Science, with a concentration in meat science.

The Cross-training in Agriculture project will enhance teaching competency by providing each institutional team with the opportunity to teach and to be taught by colleagues. It will position the two participating institutions and their faculty teams as leaders, capable of designing and disseminating a new collaborative model for curriculum and infrastructure development. It will draw upon the bilingual and the bicultural skills of Spanish and English-speaking faculty to develop a program template that is transnational, transcultural, and ultimately transportable to other institutions of higher education in the world.

Proposal Number: 9803949

Grant Number: 98-38422-6929

Lead Project Director: Dr. Michael J. Foudy

Lead Institution: Hartnell Community College

Award Amount: \$135,185

Project Duration: 2 years

Agricultural Education Expansion Project. Hartnell College, a Hispanic-Serving Institution and a fully accredited California Community College, will establish the Hartnell College Agricultural Education Expansion Project (the project), to create three articulated agricultural degree track academic programs, and provide strengthening activities such as outreach to local high schools, and special career-oriented programs. Following the two year grant-funded development phase, these programs will become part of Hartnell's regular academic program offerings. The College will create academic degree/certificate track programs in the following areas: (1) Agribusiness -- Agricultural Business Management; (2) Viticulture Enology -- wine grape production and processing; and (3) Agronomy -- crop science.

The programs will feature high quality classroom and laboratory instruction, and mandatory experiential learning through internships or other work-based experiences. The programs will employ a model linking high school students to Hartnell, and assisting Hartnell students in transferring to comparable agriculture programs at four-year universities. The regional agriculture industry is deeply involved in the development of this project.

Proposal Number: 9803977

Grant Number: 98-38422-6833

Lead Project Director: Dr. Gary L. McBryde

Lead Institution: Texas A&M University - Kingsville

Award Amount: \$270,000

Project Duration: 2 years

Bringing Industry into Agriculture and Food Science Higher Education. This is a joint project between two Hispanic-Serving Institutions: Del Mar College (DMC) and Texas A&M University-Kingsville (TAMUK). Added support for this

partnership effort is provided by the College of Agriculture and Life Sciences at Texas A&M University (COALS), the Texas Agricultural Experiment Station (TAES), and the Texas Agricultural Extension Service (TAEX). The project's vision is to engage industry in the higher education of agricultural and food science students. By adding industry into the educational mission, the project will better reach an under-served student population and make their education more relevant to the community. The project target areas focus on experiential learning, retention, and curricula design.

Project objectives are to: (1) identify mentors; (2) develop and provide mentor training; (3) set up pairing activities for students and mentors; (4) revise and teach a freshman course highlighting industry changes, soft skills, and mentor activities; (5) monitor student-mentor progress; (6) collect and analyze data on mentoring; and (7) hold annual forums with mentors, faculty, and industry to facilitate change in the curricula.

Operationally, DMC and TAMUK along with TAES and TAEX will identify mentors for students. TAES, with industry support, will develop a mentor training program. Students at each institution will need to contact the other students as part of reaching a solution. The objective is to build a broader social network using information technology. COALS and TAMUK will be monitoring project and mentor progress and analyzing collected data. COALS will organize forums to bring together mentors, faculty, and administrators to facilitate curricula change.

Dissemination plans include: (1) promotional material to advertise the program to potential students and mentors; (2) posting pertinent material developed from the project on the Internet at <http://aghs.tamuk.edu>; (3) oral and written reports internal to the Texas A&M University System Agricultural Program; (4) external presentations to the Hispanic Association of Colleges and Universities and the Texas Association of Chicanos in Higher Education; and (5) disciplinary societies such as the American Agricultural Economics Association will be informed of project results through submitted manuscripts.

Proposal Number: 9803969

Grant Number: 98-38422-6863

Lead Project Director: Dr. Donald Lindsey

Lead Institution: New Mexico State University

Award Amount: \$270,000

Project Duration: 3 years

The Bridge for Success. The Bridge for Success Project will strengthen the ability of two Hispanic-Serving Institutions (HSI) to educate students in food, agriculture, and related sciences, and thereby increase the numbers of Hispanic students pursuing careers in these areas. Albuquerque Technical Vocational Institute (TVI), New Mexico's largest community college, and New Mexico State University (NMSU), an 1862 Land-Grant College and Carnegie I Research Institute, have joined hands to create an extensive program to develop students' understanding of the broad field of food, agriculture, and related sciences. Their agreement puts into place an infrastructure for students pursuing an education at a community based program (TVI), then provides a "bridge" for those students interested in pursuing a baccalaureate degree in food, agriculture, and related sciences at a four-year institution (NMSU). This project also provides financial assistance through internships and workstudy programs for students to develop the "Hands on Experience" needed in the food and agriculture industry.

The Bridge for Success Project has three objectives: (1) The project coordinators from TVI and NMSU will develop presentations designed to inform community college and high school students in the Rio Grande corridor about food, agriculture, and related sciences; (2) The project coordinators from TVI and NMSU will develop an infrastructure of internships and education-to-work programs, designed to provide "Hand on Experience" and financial assistance to students from high schools and community colleges within the Rio Grande corridor; and (3) the program coordinator at NMSU will develop an infrastructure designed to recruit students from TVI and assist their transfer to NMSU in food, agriculture, and related sciences.

Proposal Number: 9803970

Grant Number: 98-38422-6941

Lead Project Director: Dr. Verna I. Tremel

Lead Institution: Palo Alto College

Award Amount: \$265,222

Project Duration: 2 years

Strengthening a Veterinary Technology Program Through Distance Educaiton. Goal & Objectives: This project will enable the development of a model for a seamless and shared delivery of enhanced curricula with student-support activities to attract, retain, and graduate students desiring to major in veterinary technology. Specifically, USDA funds will be used to:

(1) improve curricula design and expand instructional and library resources; (2) prepare faculty for enhanced teaching via distance education; (3) expand instructional delivery systems to include delivery via Internet and interactive video technologies; (4) incorporate scientific and technological instrumentation for teaching; (5) expand student experiential learning; and (6) increase student recruitment and retention activities to include financial scholarships. Outcomes: This collaborative project will include: (1) student recruitment at rural high schools to increase enrollment; (2) faculty training and preparation of curricula revisions using Internet and multimedia technology resulting in technologically-enhanced courses; (3) shared delivery of instruction to students between the two institutions using internet and interactive video instruction to enhance curricula to better prepare the student for the workforce; and (4) mentoring of students by business and industry representatives and TAMU faculty to improve retention and provide support for transitioning to the workforce and/or a four-year institution.

Advisory and management teams of PAC, TAMU-CVM and COALS, and VMABC representatives and students will review the curriculum, guide the distance education training, develop multimedia presentations, and deliver curricula via Internet and interactive video. PAC and CVM faculty will revise course materials and begin to deliver the first round of lectures/laboratory exercises during the spring semester of the first year and continue this process throughout the project. Support personnel will be hired for: (1) recruitment and retention activities, (2) training and development of multimedia presentations, and (3) coordination of delivery of distance education.

Proposal Number: 9803960

Grant Number: 98-38422-6862

Lead Project Director: Dr. Anthony Sena

Lead Institution: Northern New Mexico Community College

Award Amount: \$270,000

Project Duration: 3 years

Growing A Food Technology Degree Program for Northern New Mexico. Northern New Mexico Community College (Northern), New Mexico State University (NMSU), and private business Johnson Controls Inc. (JCI) are collaborating to create a unique Food Technology degree program, and to provide training to area food producers and processors throughout northern New Mexico. This project has Northern acting as the lead institution and NMSU acting as the educational support and consultant partner to the project.

Northern and NMSU are both designated Hispanic-Serving Institutions and NMSU is New Mexico's land-grant college. JCI provides integrated facilities management subcontract services to Los Alamos National Laboratory (LANL). In JCI's new contract with LANL they have committed to assist in stimulating the local economy by building a 12,000 square foot Business Center in the Espanola Valley. JCI's Business Center includes a 3,000 square foot licensed commercial Food Kitchen for use by area food processors and producers. JCI anticipates locating this new facility on Northern's Espanola campus. Upon completion of its depreciation, JCI may donate the facility to Northern to continue its use as an educational facility and stimulus for community economic capacity building.

The Food Technology degree program will target curricula design, student experiential learning, and student recruitment and retention to meet the goal of enhancing educational equity for underrepresented students. Instruction will be provided, utilizing JCI's Food Kitchen, for the degree program, and for training area food processors and food producers.

This is a unique partnership of government support (via USDA funding), higher education, and private industry to strengthen educational capacities including curriculum, faculty, instructional delivery systems, and student recruitment and retention, in order to respond to northern New Mexico's needs in the food and agricultural sciences. The project will provide support to undergraduate students from rural communities in northern New Mexico who are primarily Hispanic and Native American, preparing them for careers related to the food and agricultural resources found in northern New Mexico.